Patent Claims

1. A method for producing a ring traveler (10) for ring spinning or ring twisting machines, which has a core (20) consisting of iron material, wherein the core (20) or parts thereof are subjected to a nitriding treatment, during which heat energy and a nitriding agent as active medium are supplied to the core (20).

2. The method as claimed in claim 1, wherein the core (20) is heated to a temperature in the range of 450°C - 600°C, preferably to a temperature close to 550°C.

3. The method as claimed in claim 2, wherein the core (20) is maintained in said temperature range for 3 - 60 hours, preferably for about 24 hours.

4. The method as claimed in claim 1, 2 or 3, wherein the nitriding agent is supplied in the form of a gas preferably consisting of NH_3 and N_2 components, a nitrogen-enriched liquid or a nitrogen-enriched plasma.

5. The method as claimed in claim 1, 2, 3 or 4, wherein the active medium has, in addition to the nitrogen components, sulfur components and/or carbon components.

6. The method as claimed in one of claims 1 - 5, wherein the core (20) is polished before and/or after the nitriding treatment and/or is oxidized after the nitriding treatment.

7. A ring traveler (10) for ring spinning or ring twisting machines, with a core (20) consisting of iron material, wherein at least one mechanically stressed part of the core (20), in particular the running surface for the thread and/or the surface running on the ring, has a nitrided edge layer (23; 24).

8. A ring traveler (10) as claimed in claim 7, wherein the edge layer (23; 24) consists of a connecting layer (23) without an additional diffusion layer (24), of a connecting layer (23) with an additional diffusion layer (24) or only of a diffusion layer (24).

9. The ring traveler (10) as claimed in claim 8, wherein the connecting layer (23) has a thickness of 0.1 µm - 30 µm and the diffusion layer (24) a thickness of 1 µm - 2000 µm, preferably a connecting layer (23) with a thickness of 8 µm - 12 µm and a diffusion layer (24) with a thickness of 100 µm - 200 µm being provided.

10. The ring traveler (10) as claimed in claim 8 or 9, wherein the connecting layer (23), if appropriate also the diffusion layer (24), contain sulfur components and/or carbon components.

11. The ring traveler (10) as claimed in one of claims 7 - 10, wherein the surface (22) of the core (20) is polished and/or is provided with an oxide layer.

12. The ring traveler (10) as claimed in one of claims 7 - 11, wherein the surface (22) of the core (20) is black, blue, yellow or white, preferably shiny.

13. The ring traveler (10) as claimed in one of claims 7 - 12, wherein the basic material (21) of the core (20) is a heat-treated and/or an unalloyed or low-alloy steel, preferably a nitriding steel.

14. The ring traveler (10) as claimed in claim 13, wherein the basic material (21) of the core (20) preferably contains nitride-forming elements, such as chromium, vanadium, aluminum, molybdenum, manganese and/or nickel.

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